

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q77191

Koichi OHTO, et al.

Appln. No.: 10/650,193

Group Art Unit: 2826

Confirmation No.: 6245

Examiner: Alexander O. WILLIAMS

Filed: August 28, 2003

For: SEMICONDUCTOR DEVICE HAVING SILICON-DIFFUSED METAL WIRING
LAYER AND ITS MANUFACTURING METHOD

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicants hereby notify the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

1. Korean Unexamined Patent Application Publication 1998-084723, published
January 25, 1998

2. Korean Unexamined Patent Application Publication, 1999-005857, published
January 25, 1999

INFORMATION DISCLOSURE STATEMENT

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Q77191

One copy of each of the listed documents is submitted herewith, except for the following:
U.S. patents and/or U.S. patent publications; and co-pending non-provisional U.S. applications
filed after June 30, 2003.

The present Information Disclosure Statement is being filed after the later of three months from the application's filing date and the mailing date of the first Office Action on the merits, but before a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution in the application (whichever is earlier), and therefore Applicants are filing concurrently herewith a Statement Under 37 C.F.R. § 1.97(e). No fee under 37 C.F.R. § 1.17(p) is required.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicants enclose herewith a copy of a corresponding Korean Office Action dated December 2, 2004 and an English translation of the pertinent portions thereof which cites such documents and indicates the degree of relevance found by the foreign patent office.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

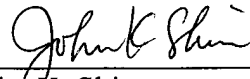
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,



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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: March 2, 2005

Q77191

NOTE

The inventions described in the Scope of Patent Claims items 1, 2, 9 through 14, 45, 46, and 53 through 58 of the invention of the present application are related to a semiconductor device comprising a metal layer containing silicon and the manufacturing method thereof, but this is in the same technical field and has a similar configuration and effect as the multilayer metal routing and formation method thereof of Cited Literature 1 (Korean Unexamined Patent Application Publication 1998-84723, January 25, 1998), and the metal routing formation method of Cited Literature 2 (Korean Unexamined Patent Application Publication 1999-5857, January 25, 1999).

Specifically, the metal routing layer containing silicon, which is the central configurational element of the invention of the present application, is extremely similar to the aluminum alloy layer containing silicon of Cited Literature 1 and the copper routing layer containing silicon of Cited Literature 2, and these actions and effects are also extremely similar.

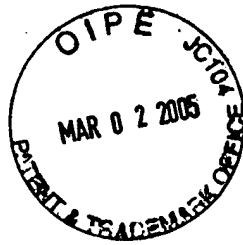
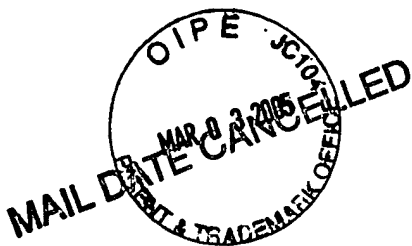
Consequently, we find that the inventions described in the Scope of Patent Claims items 1, 2, 9 through 14, 45, 46, and 53 through 58 of the invention of the present application could have been easily invented from the metal routings and formation methods thereof of Cited Literature 1 and Cited Literature 2 (Patent Law Article 29, Paragraph 2).

(ATTACHMENTS)

Attachment 1: Copy of Korean Unexamined Patent Application Publication
1998-84723 (January 25, 1998), one copy

Attachment 2: Copy of Korean Unexamined Patent Application Publication
1999-5857 (January 25, 1999), one copy

END



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STATEMENT UNDER 37 C.F.R. § 1.97(e)

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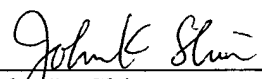
Sir:

The undersigned hereby states, upon information and belief:

That each item of information contained in the Information Disclosure Statement filed
concurrently herewith was first cited in any communication from a foreign patent office in a
counterpart foreign application not more than three months prior to the filing of said Information
Disclosure Statement.

Respectfully submitted,

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WASHINGTON OFFICE

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Substitute for Form 1449 A & B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

of

1

Complete if Known

Application Number	10/650,193
Confirmation Number	6245
Filing Date	August 28, 2003
First Named Inventor	Koichi OHTO
Art Unit	2826
Examiner Name	Alexander O. WILLIAMS
Attorney Docket Number	Q77191

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ² (if known)		
		US			
		US			
		US			
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		US			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		KR	1998-084723		01-25-1998		NO
		KR	1999-005857		01-25-1999		NO

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁶

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to indicate here if English language Translation is attached.